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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,075	12/29/2000	Rajesh Kumar	081862.P210	7733

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EXAMINER	
PHAN, TRI H	
ART UNIT	PAPER NUMBER

DATE MAILED: 07/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/752,075

Applicant(s)

KUMAR ET AL.

Examiner

Tri H. Phan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. This application has been filed with informal drawings, which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Lakhani et al.** (U.S.6,721,322) in view of **Li et al.** (U.S.6,195,714).

- In regard to claims 1 and 16, **Lakhani** discloses in Figs. 2-5 and in the respective portions of the specification about the system and method for provisioning dynamic high usage transit trunk groups with ATM facilities connected between the end offices in the switched telephone network (For example see Figs. 2-5; Abstract; col. 4, lines 25-65); wherein the call manager in the common channel signaling network or SS7 network ("*telephony signaling control network*"; For example see col. 5, lines 4-22) receives and extracts the information of the SS7 Initial Address Message 'IAM' sent from the originating Multi-Services Platforms 'MSP'

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interface, e.g. “*ATM source gateway*”, (For example see Figs. 2-3 and 5; col. 5, line 45 through col. 6, line 2; col. 6, lines 39-53; where the MSPs provide access to the ATM network via the transit trunk group by the synchronous transfer mode switches as disclosed in col. 4, lines 43-54), which includes the TDM path ends and end point address of the originating interface (“*ATM source identification*”) in the connection request message (For example see col. 7, lines 4-16; which uses for creating the switched virtual circuit ‘SVC’ between two end points with the circuit identification code ‘CIC’ for the trunk group as disclosed in col. 6, lines 3-22; col. 7, lines 33-40), sends the connection request message to the terminating interface (“*ATM destination gateway*”; For example see col. 6, lines 53-60) and where the terminating interface responds with the Connect message to the originating interface through the ATM network (For example see Figs. 2-3; col. 6, line 58 through col. 7, line 4; col. 7, lines 17-32). **Lakhani** does disclose about the method for establishing the switched virtual circuit ‘SVC’ between two end points with the circuit identification code ‘CIC’ for the trunk group, which based on the information of the TDM path ends and end point addresses in the connection request message, but fails to explicitly disclose about the “*ATM-TDM correlation tag*”. However, such implementation is known in the art.

For example, **Li** discloses in Figs. 1-7 and in the respective portions of the specification about the system and method for transferring the STM calls, e.g. ‘TDM’, through the edge nodes of ATM network, which serve as gateways (“*ATM source/destination gateways*”) and configure to support switched virtual circuit ‘SVC’ (For example see Fig. 1A; col. 5, lines 8-50); where the switch control element of the ATM switch receives and sets up the SVC with the CIC in the ISUP message (For example see col. 7, lines 5-16) to create the SVC connection request

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including the TDM port identification number and VCCI ("*ATM-TDM correlation tag*"; For example see col. 8, line 27 through col. 9, line 9; col. 11, lines 1-7; wherein the address of the origination ATM switch, e.g. calling party address or "*ATM source identification*", is added in the request and setup SVC as disclosed in col. 11, lines 65-67) and send from the origination ATM switch to the destination ATM switch through the ATM network (For example see Fig. 4 with detail steps for the call setup; col. 9 line 61 through col. 13, line 44).

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to combine the invention as taught by Li, by implementing the TDM port identification number and VCCI of the SVC request and setup in **Lakhani's** SVC request and setup, with the motivation being to rapidly set up and transfer STM calls in the multi-service ATM network with sustaining PSTN service levels as disclosed in col. 2, lines 19-23, 26-36.

- Regarding claims 2-4, **Lakhani** further discloses about the IAM advisory message ("*notification of the call*") sent from the call manager in the common channel signaling network or SS7 network ("*telephony signaling control network*") to the originating MSP interface, e.g. "*ATM source gateway*", (For example see col. 6, lines 39-50); and the originating interface responds with the IAM ACK ("*in response to the notification*") with the verification of the availability of resources such as TDM path and end point addresses for the SVC setup (For example see col. 6, lines 50-56; col. 7, lines 4-16). **Lakhani** does disclose about the method for establishing the switched virtual circuit 'SVC' between two end points with the circuit identification code 'CIC' for the trunk group, which based on the information of the TDM path ends and end point addresses in the connection request message (It is obvious that the 'CIC' is

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the available CIC in the trunk group, e.g. “*random number*”, as disclosed in col. 7, lines 33-40), but fails to explicitly disclose about the “*ATM-TDM correlation tag*”. However, such implementation is known in the art.

For example, Li discloses in Figs. 1-7 and in the respective portions of the specification about the system and method for transferring the STM calls, e.g. ‘TDM’, through the edge nodes of ATM network, which serve as gateways (“*ATM source/destination gateways*”) and configure to support switched virtual circuit ‘SVC’ (For example see Fig. 1A; col. 5, lines 8-50); where the switch control element of the ATM switch receives and sets up the SVC with the CIC in the ISUP message (For example see col. 7, lines 5-16) to create the SVC connection request including the TDM port identification number and VCCI (“*ATM-TDM correlation tag*”; For example see col. 8, line 27 through col. 9, line 9; col. 11, lines 1-7; wherein the TDM port identification number and VCCI are the available or unoccupied number in the resource table, e.g. “*random number*” as disclosed in col. 10, line 50 through col. 11, line 22) and the address of the origination ATM switch, e.g. calling party address or “*ATM source identification*”, is added in the request and setup SVC as disclosed in col. 11, lines 65-67) and send from the origination ATM switch to the destination ATM switch through the ATM network (For example see Fig. 4 with detail steps for the call setup; col. 9 line 61 through col. 13, line 44).

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to combine the invention as taught by Li, by implementing the TDM port identification number and VCCI of the SVC request and setup in Lakhani’s SVC request and setup, with the motivation being to rapidly set up and transfer STM calls in the multi-service ATM network with sustaining PSTN service levels as disclosed in col. 2, lines 19-23, 26-36.

- In regard to claims 5-6, 12 and 14, **Lakhani** further discloses about the IAM ACK with the verification of the availability of resources in the originating interface such as TDM path (“*trunk line*”) and end point addresses for the SVC setup (For example see col. 6, lines 50-56; col. 7, lines 4-16), but fails to explicitly disclose about the “*TDM time slot*”. However, using “*time slot*” for carrying data in the time division multiplexing is well known in the art. Therefore, it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to implement the “*time slot*” in the TDM trunk path as taught by **Lakhani**, for verifying the transmitting “time slots” in the time division multiplexing ‘TDM’.

- Regarding claims 7, 13 and 15, **Lakhani** does disclose about the TDM path and end point addresses for the SVC setup for the transit trunk groups with ATM facilities connected between the end offices, but fails to explicitly disclose about the “*VPI/VCI address*” in the connection setup message. However, such implementation is known in the art.

For example, **Li** discloses about the TXconnection set message with TDM port identification number and the VCCI, which includes the ATM port number/VPI/VCI (For example see col. 9, lines 2-5; col. 12, lines 62-67), which store and update in the ATM address mapping table and VCCI resource table (“*updating mapping table*”; For example see Tables 1-5; col. 11, line 43 through col. 12, line 46; where the call allocation resource and SVC setup are accomplished at each node in the call path, e.g. ATM auxiliary line cards ‘AXLC’, “*reflecting to the cell with particular VPI/VCI*”, as disclosed in col. 6, lines 6-16; col. 11, lines 43-55).

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Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to combine the invention as taught by **Li**, by implementing the TDM port identification number and VCCI of the SVC request and setup in **Lakhani**'s SVC request and setup, with the motivation being to rapidly set up and transfer STM calls in the multi-service ATM network with sustaining PSTN service levels as disclosed in col. 2, lines 19-23, 26-36.

- In regard to claims 8-11, **Lakhani** further discloses about the setup request ("*SETUP message*"; For example see Fig. 3; col. 6, line 60 through col. 7, line 22) and the connect or SynchAck message ("*CONNECT message*"; For example see Fig. 3; col. 7, lines 22-32) and **Li** further discloses about the use of Application Programming Interface 'API', which is suitable for supporting non-ATM services on the ATM multi-service switch with the SVC setup and connect ("*ERQ message*" and "*ECF message*"; For example see Figs. 2-4; col. 7, line 58 through col. 8, line 7; col. 8, line 8 through col. 9, line 9; with detail steps in Fig.4).

- Regarding claims 17-23, the combination of **Lakhani** and **Li** fails to explicitly disclose about the "*Called Party Sub Address Information Element (IE)*", "*Generic Identifier Transport (GIT) IE*", "*Generic Application Transport (GAT) IE*", "*User to User IE*", "*Network Call Correlation Identifier (NCCI) IE*", "*Calling Party Sub Address IE*" and "*Served User Generated Reference (SUGR) IE*", which are the information elements of the SETUP message. However, these information elements are defined program objects, which change from system to system and depend on the system engineering choices in programming for the system; therefore, it is obvious that to the person of ordinary skill in the art at the time of the invention was made to

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provide different information elements in the Application Programming Interface 'API' as disclosed in **Li**, to verify the designed information containing in the setup message.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Arango et al. (U.S.6,724,747), **Sylvain** (U.S.2002/0080791), **Elliott et al.** (U.S.6,614,781) and **Ramnath A. Lakshmi-Ratan**, "The Lucent Technologies Softswitch - Realizing the Promise of Convergence", Bell Labs Technical Journal, April-June 1999, Pages 174-195 are all cited to show devices and methods for improving the communication architectures between different networks, which are considered pertinent to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tri H. Phan, whose telephone number is (703) 305-7444. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas W. Olms can be reached on (703) 305-4703.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

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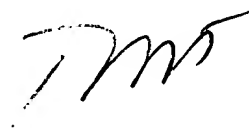
(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA, Sixth Floor.

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the Technology Center 2600 Customer Service Office, whose telephone
number is (703) 305-3900.



Tri H. Phan
June 27, 2004



DAVIDSON
JUNE 27 2004